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09/607,914	06/29/2000	Chingwei Peter Cheng	ORCL5638	2945

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EXAMINER

SHAFFER, ERIC T

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/607,914

Applicant(s)

CHENG ET AL.

Examiner

Eric T. Shaffer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

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### **DETAILED ACTION**

1. The following communication is in response to the amendments filed April 16, 2003.

#### ***Summary Of Instant Office Action***

2. Applicant's arguments, filed April 16, 2003, concerning claims 1 – 42 in the Office Action mailed December 27, 2002, have been considered, and deemed unpersuasive.
3. None of the old claims have been cancelled or amended and the applicant has not added any new claims. Claims 1 – 42 are pending and are prosecuted in the response set out below.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

**Claims 1 - 5, 8 - 13, 15 - 19, 22 - 27, 29 - 33 and 36 - 41** are rejected under 35

U.S.C. 102(e) as being anticipated by Healy et al (US 6,298,328).

5. **Claims 1, 15 and 29** are a method, computer system and medium of categorizing a customer, comprising the steps of:

selecting a measure on which the status of the customer is to be analyzed; A measure called the propensity to buy is anticipated by Healy et al which discloses "the determination of the rated buying population for a category involves inputting a population for the category and a

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propensity-to-buy rating for the category, and multiplying the population for the category by the propensity-to-buy rating for the category” (column 2, lines 6 – 10).

selecting a calculation period; A time period for a calculation to be performed is anticipated by Healy et al which discloses “Forecasting can be done either by assigning a growth rate to each time period for a given product” (column 5, lines 23 - 24).

selecting a comparison method; A method of comparing propensity-to-buy ratings is anticipated by Healy et al which discloses “For each category of each market factor, the profiles and ratings data includes a propensity-to-buy rating. For example, a propensity-to-buy rating would be assigned to the population that is 40-50 years old. This could be a value on a scale of 1 to 100 or any other scale” (column 6, lines 12 -16).

computing a lifecycle factor, the lifecycle factor being related to both a size and a growth of the customer according to the selected measure, both the size and growth being determined over two selected calculation periods using the selected comparison method. The size of the customer is anticipated by Healy et al, which discloses “the sub-region’s population falling within the category (e.g., the number of persons between ages 40 and 50)” (column 6, lines 31 - 33). The growth rate is also anticipated by Healy et al, which discloses “growth rates can also be made specific to geography and market segments” (column 5, lines 25 -26). The lifecycle factor is also anticipated by Healy et al, which discloses “the rated buying population for the category is computed by multiplying the propensity-to-buy rating by multiplying the propensity-to-buy rating by the population falling within the category” (column 6, lines 33 - 36).

categorizing the customer by evaluating a plurality of categorization criteria, at least one of the plurality of categorization criteria including the computed lifecycle factor. Categorization

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criteria are anticipated by Healy et al, which discloses the five weighting coefficient or criteria of “product, geography, market segment, provider, and time” (column 6, lines 20 -21).

6. **Claims 2, 16 and 30** are a method, computer system and medium wherein the measure is selected from a group including number of orders, quantity of purchase and revenue. A measure that is based upon quantity of purchase is anticipated by Healy et al, which discloses “the stages of a product life cycle” (column 5, lines 31) in which the y-axis of the product life cycle is quantity of products sold.

7. **Claims 3, 4, 17, 18, 31 and 32** are a method, computer system and medium wherein the calculation period is selected from a group including daily, weekly, monthly, quarterly, semi-annually, yearly, period and year over year. Calculation over various time periods is anticipated by Healy et al which discloses “in the time dimension, the database can track both historic and forecasted market data. Any time frames can be accommodated. For example, in one embodiment, the database contains 20 quarters of historic market data and 20 quarters of current and/or forecasted market data. Since all market allocations performed by the system can be performed in each time period, the addition of more time periods can add significantly to the computing hardware requirements” (column 5, lines 15 - 22).

8. **Claims 5, 19 and 33** are a method, computer system and medium wherein the categorizing step assigns a customer to one of a plurality of stages according to which of the plurality of categorization criteria is satisfied. A number of or series of stages is anticipated by Healy et al which discloses “when product profiles are used, each product is assigned one of a series of profiles that generically describe a set of product growth trends, which often vary by the stages of a product life cycle” (column 5, lines 26 - 29).

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9. **Claims 8, 22 and 36** are a method, computer system and medium further comprising the step of selecting the customer according to at least one of a plurality of customer selection parameters. Customer selection parameters are anticipated by Healy et al, which discloses the five weighting coefficient or criteria of “product, geography, market segment, provider, and time” (column 6, lines 20 -21).

10. **Claims 9, 23 and 37** are a method, computer system and medium wherein the customer selection parameters include market segment, customer category, operating unit and geography. Market segment and geography are anticipated by Healy et al, which discloses the five weighting coefficient or criteria of “product, geography, market segment, provider, and time” (column 6, lines 20 -21).

11. **Claims 10, 24 and 38** are a method, computer system and medium wherein the geography customer selection parameter includes at least one of a plurality of geographical sub-parameters, including area, country, region, state/province and city. Sets of regions and sub-regions is anticipated by Healy et al which discloses “market allocation fractions by said market size for said region, thereby generating a set of market sizes for said set of sub-regions” (column 9, lines 23 - 25).

12. **Claims 11, 12, 25, 26, 39 and 40** are a method, computer system and medium wherein the accessing step accesses a remote database of customer data over a computer network. Incorporating a database is anticipated by Healy et al, which discloses “a method of using a computer for creating a database of market size data for one or more sub-regions” (column 9, lines 7 - 8).

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13. **Claims 13, 27 and 41** are a method, computer system and medium wherein the computer network includes the Internet. Incorporating the world wide web is anticipated by Healy et al which discloses "the output can be delivered electronically through a variety of channels, including facsimile, e-mail, and the world wide web" (column 4, lines 10 - 11).

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claims 6, 7, 20, 21, 34 and 35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Healy et al (US 6,298,328) in view of the book "Marketing" by Evans & Berman copyright 1992.

Healy et al teaches a device for allocating, tracking and forecasting marketing data by a plurality of criteria, including product, geographic area, marketing segment, market size and market growth. Healy et al specifically teaches "stages of a product life cycle" (column 5, line 29), but does not actually recite each individual stage of the product life cycle.

"Marketing" by Evans & Berman defines the product life cycle as a means to "describe a product's sales, profits, customers, competitors and marketing emphasis" (page 263), teaches that the "product life cycle was first popularized by Theodore Levitt in 1965" (page 263), and

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teaches the four phases of the product life cycle as “introduction, growth, maturity and decline” (page 265, figure 9-12 and table 9-5).

It would have been obvious to one of ordinary skill in the art of marketing at the time the invention was made to recite and include the individual stages of the marketing life cycle within the Healy et al invention because identifying each individual step is critical to implementing the product life cycle method in a practical business environment. Without knowing the individual steps, the product life cycle is too abstract of an academic concept to be of any practical use. Only by breaking the product life cycle down into individual implementable steps can the concept be applied in a concrete and practical business application.

16. **Claims 6, 7, 20, 21, 34 and 35** are a method, computer system and medium wherein the plurality of stages includes at least one of New, Growing, Stable, Declining, Defected and Insignificant, where the new stage is based upon a date at which an account is established for the customer. This is taught by “Marketing” by Evans & Berman, which recites new as the introduction phase, recites growing as the growth phase, recites stable as the maturity phase, and declining, defected and insignificant as the decline phase (page 265).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to subdivide the product life cycle mentioned in the Healy et al invention into the phases of new/introduction, growth/growing, maturity/stable and decline/declining mentioned in the Evans & Berman “Marketing “ book because the concept of the product life cycle and the four listed phases are old and very well known in the art of marketing. Dividing the product life cycle into four phases and further dividing the decline phase into declining, defected and



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insignificant would be obvious because this would lend a more granular analysis of the marketing data.

17. **Claims 14, 28 and 42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Healy et al (US 6,298,328) in view of the book Marketing research in a Marketing Environment by Dillon, Madden & Firtle copyright 1987.

Healy et al teaches a device for allocating, tracking and forecasting marketing data by a plurality of criteria, including product, geographic area, marketing segment, market size and market growth. Healy et al specifically teaches multiple periods, the percentage growth in the selected measure, the calculation of a life cycle factor called a propensity-to-buy, and weighting coefficients for determining marketing factors. Healy et al does not specifically mention determining an absolute value or the difference of the selective measure.

Dillon, Madden & Firtle teaches eigen-vectors as weighting factors used to conduct discriminant analysis (page 507), calculation of a purchase intent (page 519) and using the single linkage or nearest neighbor method to perform cluster analysis (page 511). The nearest neighbor method uses “a minimum-distance rule that starts out by first finding those two objects having the shortest distance. They constitute the first cluster” (page 511). Since distance is essentially the absolute value of the differences in the coordinates of two points, Dillon, Madden & Firtle’s description of cluster analysis teaches the absolute value of a difference between two selected measures.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate into the Healy et al invention the concepts of discriminant analysis and

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cluster analysis because both concepts are used to categorize customers and both concepts are useful in determining how likely a customer is to buy a product, which Healy et al calls a propensity-to-buy. Cluster and discriminant analysis are two statistical analysis techniques that are old and well known in the art of marketing research and would be obvious to employ by a marketing researcher developing a tool to analyze marketing data.

### *Response to Amendments*

18. Applicant's arguments filed April 16, 2003 have been fully considered, but the same are not persuasive.

a) Applicant argues that Healy does not contain a method for categorizing a customer. However, Healy does teach a plurality of market segments such as geographic region and age group demographics. Furthermore, Healy also teaches "the determination of the rated buying population for a category involves inputting a population for the category" (column 2, lines 6 - 7), indicating that populations and categories are made up of individual customers that are input into a specific category based on their individual characteristics.

b) Applicant argues that the Healy "propensity-to-buy" rating is not a measure on which a customer can be analyzed. However, "propensity-to-buy" is the likelihood or a probability that the customer will in fact buy. Said "propensity-to-buy" is a measure of whether the customer is a good prospect and is worthy of being marketed to by a business. A low propensity-to-buy" would indicate that a customer would be a poor prospect to market towards, while a high "propensity-to-buy" would indicate that a customer would be a good prospect to market towards. A customer with a high "propensity-to-buy" would present a better investment

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for a marketing budget than a customer with a low “propensity-to-buy”. Therefore, a high or low “propensity-to-buy” is a measure on which a customer’s buying potential can be analyzed.

c) Applicant argues that Healy does not teach or suggest any comparison method.

However, Healey teaches “forecasting can be done either by assigning a growth rate to each time period for a given product” (column 5, lines 23 – 24), where a forecast is a comparison of conditions in the past with present conditions in order to predict the likelihood of a future event. Furthermore, since “growth rates can be made specific to geography and market segment” (column 5, lines 25 –26), and age groups of customers are legitimate market segments, the use of a different populations of customers to specify a growth rate and perform a forecast is a comparison method. Applicant’s claim of a comparison method is not sufficiently precise enough to rule out use of a forecast or a growth rate as a comparison method.

d) Applicant argues that Healy does not teach the size and growth necessary to compute a lifecycle factor. However, Healy does in fact teach a growth factor “growth rates can be made specific to geography and market segment” (column 5, lines 25 –26) as well as also teaching a “rated-buying population” (column 6, line 27). Therefore Healy teaches the necessary and sufficient conditions for the “lifecycle factor” as vaguely defined in the applicant’s claim. Applicant’s claim of a life cycle factor is not sufficiently precise enough to rule out use of a growth rate and rated-buying population as life cycle factors.

e) Applicant argues that Healy does not teach a means for categorizing a customer or sizing a market. However, Healy does teach geography and market segment, which are in fact a type of marketing category called demographics, which are very well known in the art to be used to classify and categorize people in order to perform marketing segment analysis. Furthermore,

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as mention in the previous paragraph, Healy does teach the growth factor and population necessary to compute a life cycle factor. Healy also does in fact teach sizing a market through the use of growth factors and marketing segment analysis.

f) Applicant argues that the product life cycle is irrelevant to the life cycle of a customer. However, it is the volume and individual characteristics of customers who purchase and use a product that constitutes the product life cycle. Early adopters are a separate and distinct group of people that laggards who are the last to adopt a product. The product life cycle is highly relevant to the stages a customer enters because said product life cycle provides the means for categorizing customers.

In light of the above stated facts, examiner respectfully states that applicant's arguments have been fully considered, deemed unpersuasive and the rejections under the prior Office Action, mailed December 31, 2002 are maintained, along with the additional rejection of the newly added claim 26.

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*Conclusion*

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric Shaffer whose telephone number is (703) 305-5283. The Examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax number for the organization is (703) 305-0040/308-6306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Receptionist whose telephone number is (703) 305-3900.

Eric Shaffer

June 27, 2003

  
**TARIQ R. HAFIZ**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3600**